Recommended Summary Programmatic Action Outcomes for Use in the Conservation Strategy Evaluation of Potential Effects of CALFED Actions

Summary Programmatic Action Outcomes	Applicable CALFED Regions			
	Delta	Bay	Sacramento River	San Joaquin River
Ecosystem Restoration Program				
E1. Provide for more natural river flows and Bay-Delta freshwater inflow peaks in fall, winter, and spring of all but critical years.	X	X	X	X
E2. Improvement in the supply of sediment to rivers and streams necessary for providing spawning gravels and rehabilitation of related ecological processes (e.g., stream meander) and floodplain habitats (e.g., riparian habitats).			X	X
E3. Maintenance of stream temperatures necessary to maintain anadromous fishes through management of reservoir releases or structural solutions (i.e., does not include the effect of restoration of riparian vegetation on maintaining stream temperatures).			X	
E4. Provide more natural Delta hydraulic conditions (internal flow and velocity patterns) by altering channel configurations (e.g., setback levees) and physical barriers to channel flow.	X			
E5a. Restoration of up to 7,500 acres of tidal shallow-water habitat.	X			
E5b. Restoration of up to 1,500 acres of tidal shallow-water habitat.		X		
E6. Restoration and maintenance of riverine aquatic habitats.			X	X
E7. Restoration of 7,500–12,000 acres of tidal saline emergent wetland.		X		
E8. Restoration of 30,000 to 45,000 acres of tidal fresh emergent wetland.	X			
E9. Maintenance of existing and restoration of up to 200 acres of channel islands and associated habitats.	X			

why 2 outcomes?

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	Delta	Bay	Sacramento River	San Joaquin River
E10a. Restoration of 75-160 miles of tidal sloughs.	X			
E10b. Restoration of 15–30 miles of tidal sloughs.		X		
E11. Restoration of up to 17,000 acres of nontidal freshwater emergent wetland.	X			
E12. Restoration of up to 1,600 acres of nontidal deep open-water habitat adjacent to existing and restored wetlands.		X		
E13a. Enhancement of up to 4,000 acres of existing and restoration and management of up to 28,000 acres of seasonal wetlands for wildlife.	X			
E13b. Enhancement and management of up to 58,000 acres of existing seasonal wetlands for wildlife.		X		
E13c. Enhancement and management of up to 46,890 acres of existing seasonal wetlands for wildlife.			X	
E13d. Enhancement and management of existing seasonal wetlands in the Eastside Delta Tributaries Ecological Zone for wildlife.				X
E14a. Protection, enhancement, and restoration of vernal pools for the delta green ground beetle.	X			
E14b. Protection and enhancement of up to 100 acres of vernal pools and 500–1,000 acres of surrounding lands.		X		
E15a. Restoration of 43–75 miles of riparian habitat along channels, restoration of riparian habitat in association with setback levees, restoration and management of 500 acres of riparian woodland, protection of 500 acres of existing riparian forest, and reduction of current invasive riparian plants by 50%.	X			
E15b. Restoration of 40–60 miles of riparian habitat along channels and reduction of populations of invasive non-native riparian plants by 50%.		X		

Table 1. Continued

Summary Programmatic Action Outcomes	Applicable CALFED Regions			
	Delta	Bay	Sacramento River	San Joaquin River
E15c. Protection and enhancement of 8,000–14,000 acres of riparian habitat in meander zones along the Sacramento River and its tributaries; restoration of up to 150 miles of riparian habitat along tributaries channels; protection, enhancement, and restoration of riparian habitat and shaded riverine aquatic (SRA) cover along other reaches of the Sacramento River and its tributaries; and reduction of populations of non-native invasive plants.			X	
E15d. Protection and enhancement of 2,740–3,240 acres of riparian habitat in meander zones along San Joaquin River tributaries; restoration of up to 50 miles of riparian habitat along the San Joaquin River; protection, enhancement, and restoration of riparian habitat and SRA cover along other reaches of the San Joaquin River and its tributaries; and reduction of populations of non-native invasive plants along the northern tributaries to the San Joaquin River.				X
E16a. Restoration of 4,000–6,000 acres of perennial grassland.	X			
E16b. Restoration of up to 4,000 acres of perennial grassland.		X		
E16c. Restoration of perennial grassland associated with existing or restored wetlands in the American River basin.			X	
E17. Protection and enhancement of 50–100 acres of inland dune scrub.	X			
E18. Cooperative management of 40,000–75,000 acres of agricultural lands to enhance habitat values for waterfowl and other associated species.	X			
E18. Cooperative management of up to 298,643 acres of agricultural lands to enhance habitat values for waterfowl and other associated species.			X	
E18. Protect and manage 3,000–4,000 acres of agricultural lands for wintering greater sandhill cranes.				X
E19. Restoration of flood refuge habitat areas for wildlife along levees and other lands adjacent to existing and restored habitat areas.	X	X		

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Summary Programmatic Action Outcomes	Applicable CALFED Regions			
	Delta	Bay	Sacramento River	San Joaquin River
E20. Reduction in the adverse effects of dredging on estuarine aquatic habitats.	X			
E21. Reduction in the probability of introduction and establishment of non-native aquatic species into the Bay-Delta.	X	X		
E22. Reduction in the adverse effects of diversions on fish.	X	X	X	X
E23. Improvement in passage of anadromous fish to and from spawning areas and reduction in levels of fish straying as a result of reducing the effects of structural impediments to fish movement.			X	X
E24. Reduction in levels of predation on juvenile anadromous fish.	X	X	X	X
E25. Reduction in the adverse effects of harvest on fish and wildlife populations.	X	X	X	X
E26. Improved management of fish hatcheries to better maintain the genetic integrity of wild stocks of anadromous fishes.			X	X
E27a. Reduction in the concentrations and loadings of contaminants in the aquatic environment by 25%–50%.	X			
E27b. Reduction in the concentrations and loadings of contaminants in the aquatic environment.			X	X
E28. Reduction in the adverse effects of boat wakes on shoreline habitats and wildlife in sensitive habitat areas.	X	X		
E29. Enhancement of habitat conditions for the riparian brush rabbit in occupied habitat areas at and near Caswell State Park on the Stanislaus River.				X
E30. Enhancement of habitat conditions for the Suisun song sparrow in occupied habitat areas.		X		
Levee System Integrity Program				

Summary Programmatic Action Outcomes	Applicable CALFED Regions			
	Delta	Bay	Sacramento River	San Joaquin River
L1. Improvement and maintenance of Delta levees to PL 84-99 standards.	X			
L2. Enhancement of the level of flood protection provided by Delta levees.	X			
L3. Reduction in the risk to levee stability from subsidence.	X			
Water Quality Program				
Q1. Reduction of oxygen-depleting substances in the aquatic environment.	X		X	X
Q2. Maintain pathogen loadings or below mandated levels and reduce levels of total organic carbon, bromide, and total dissolved solids to increase the availability of water for beneficial uses.	X	X	X	X
Q3. Reduction of mercury loadings in water and sediment.		X	X	X
Q4. Reduction of pesticide loadings in the aquatic environment.	X	X	X	X
Q5. Management of salinity levels in the aquatic environment to improve water quality.	??			X
Q6. Reduction in selenium concentrations and loadings to the aquatic environment.		X		X
Q. Reduction of cadmium, copper, and zinc loadings to levels which do not adversely effect Bay-Delta species or beneficial uses of water.	X	X	X	X
Q8. Reduction of sediment loadings to levels which do not adversely effect beneficial uses of surface water.		X	X	X
Water Use Efficiency Program				
W1. Support implementation of water management techniques that increase the effectiveness of water use management and efficiency for agricultural uses.	X	X	X	X

Summary Programmatic Action Outcomes	Applicable CALFED Regions			
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W2. Support implementation of measures that increase agricultural production per unit of water used, protect water quality, or increase environmental benefits while meeting agricultural needs.	X	X	X	X
W3. Provide planning and technical assistance, financing assistance, and assurances for development and implementation of water management plans and best management practices to urban water agencies.	X	X	X	X
W4. Support development and implementation of water recycling projects.	X	X	X	X
Water Transfer Program				
T1. Implement a framework of actions, policies, and processes that will facilitate transfers and the further development of a statewide water transfer market.	X	X	X	X
Watershed Management Program				
M1. Fund and implement watershed restoration, maintenance, conservation, and monitoring activities.	X	X	X	X
Conveyance Facilities				
C1. Construct and operate modifications to existing south Delta conveyance features.	X			
C2. Construct and operate improvements to CVP-SWP conveyance features in the south Delta.	X			
C3. Construct and operate an isolated conveyance facility from the Sacramento River to Snodgrass Slough.	X			
C4. Construct and operate modifications to existing north Delta conveyance features.	X			

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	Delta	Bay	Sacramento River	San Joaquin River
C5. Construct and operate an isolated conveyance facility from the Sacramento River along the eastern side of the Delta to Clifton Court Forebay.	X			
Storage Facilities				
S1. ??				
Conveyance and Storage Operations				
O1. ??				